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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,063	01/09/2007	Michael Hopkinson	70346	3539

26748 7590 06/05/2008

SYNGENTA CROP PROTECTION , INC.
PATENT AND TRADEMARK DEPARTMENT
410 SWING ROAD
GREENSBORO, NC 27409

EXAMINER	
BROWN, COURTNEY A	
ART UNIT	PAPER NUMBER
1616	
MAIL DATE	DELIVERY MODE
06/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,063	HOPKINSON ET AL.	
	Examiner	Art Unit	
	COURTNEY BROWN	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) *12-14 and 30-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 15-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/22/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Receipt of Amendments/Remarks filed on March 5, 2008 is acknowledged. Claims 1-32 are pending. In response to the Restriction Requirement filed on February 5, 2008, Applicant elected Group I, claims 1-11 and 15-29 with traverse. Claims 12-14 and 30-32 are withdrawn as being directed to a non-elected invention. Claims 1-11 and 15-29 are being examined for patentability.

Priority

Priority to US Provisional Application 60/527,364 filed on May 12, 2003 is acknowledged.

Information Disclosure Statement

The Information Disclosure Statement (IDS) submitted on May 22, 2000 is being considered by the examiner.

Restriction/Election

The Examiner acknowledges receipt of Applicant's response to the restriction requirement filed on February 5, 2008. Applicant elected with traverse,

Group I, claims 1-11 and 15-29. Applicant traversed the requirement for restriction in that the invention primarily lies in the novel combination of mesotrione having an average particle size less than 1 micron and a dispersing agent. Applicant contends that a reasonable search could go to related methods of use. The Examiner respectfully disagrees with this viewpoint. In the Restriction Requirement dated February 5, the Examiner has provided adequate reasons as to why the inventions in Groups I and II are considered as separate status in the art due to their individual and distinct subject matter and why different fields of search is required in the non-patent literature. For these reasons, the restriction requirement is repeated and hereby expressly made final.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1,2,8-11,15,16, and 19-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hacker et al. (US 2003/0186816 A1) in view of Koltzenburg et al. (US 2007/0122436 A1) .

Applicant's Invention

Applicant claims a suspoemulsion formulation comprising: (A) a continuous aqueous phase; (B) (i) a dispersed emulsion phase comprising at least one liquid, water-insoluble active ingredient comprising mixtures of metalachlor (S) and (R) isomers (an acetamide herbicide);(ii) an emulsifier in an amount sufficient to emulsify the liquid, water-insoluble active ingredient; (C) (i) a herbicidally effective amount of mesotrione comprising metal chelates selected from the group consisting of copper or zinc chelates and having a particle size of less than 800 nanometers as a dispersed solid phase;(iv) a dispersing agent in an amount sufficient to disperse the mesitrione as any other solid technical materials present in the formulation; wherein the solid phase is dispersed in said aqueous and/or emulsion phase; (D) at least one safener selected from the group consisting of benoxacor and dichlormid; and (E) at least one additional solid, water-insoluble active ingredient selected form the group of triazine and sulfonylurea herbicides selected from the group consisting of glyphosate, glufosinate, and agriculturally acceptable salts thereof. Applicant also claims a pesticidal composition (further consisting at least one member selected from the group consisting of co-herbicides, fungicides, insecticides, acaricides, and nematicides) that is obtained by diluting said suspoemulsion formulation in water.

Determination of the scope and the content of the prior art (MPEP 2141.01)

Hacker et al. teach herbicide combinations comprising active compounds such as mesotrione, glufosinate, glyphosate (abstract, claims 1, 8, 9,11,25,27, and 29 of instant application), and benoxacor ([0087], claims 19, 22, and 23 of instant application) that can be formulated as a suspoemulsion ([0074], claims 15-29 of instant application). Hacker et al. teach the preparation of emulsifiable concentrates with the addition of one or more ionic or nonionic surfactants (emulsifiers) ([0150], claim 15 of instant application). Additionally, Hacket et al.teach that the active combinations can exist together with further agrochemically active compounds, additives, and/or customary formulation auxiliaries which are applied as a dilution with water ([0145], claims 10 and 28 of instant application).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the invention of the instant application and that of Hacker et al. is that the instant invention requires that the mesitrione component has an average particle size of less than 1 micron. For this reason, the teaching of Koltzenburg et al. is joined. Koltzenburg et al. teach nanopraticulate formulations comprising at least one active compound (abstract)

such as mesotrione, glyphosate, and glufosinate, ([0058], claims 1,6,7,9,11,15 ,24,25, and 27 of instant application). Koltzenburg et al. teach that the mean particle size of the active compounds is preferably less than 500 nanometers and particularly preferably less than 100 nanometers ([0109], claims 1,2,15, and 16 of instant application). Additionally, Koltzenburg et al. teach that the active compound formulations can exist in the form of suspoemulsions or emulsifiable concentrates ([0141], claims 15-29 of instant application).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the two cited references to arrive at a pesticidal composition having an active component has an average particle size of less than 1 micron. Both references teach the use of active compounds mesitrione, glyphosate, and glufosinate and the forming suspoemulsion formulations. One would have been motivated to make this combination in order to receive the expected benefit of increasing the solubility, dispersibility, and bioavailability of the active compound particles due to reducing the particle size. "It would be prima facie obvious to combine two methods each of which is taught by the prior art to be useful for the same purpose in order to form a resultant method that is to be used for the very same purpose; the idea of

combining them flows logically from their having been individually taught in prior art." In re Kerkhoven, 205 USPQ 1069 (C.C.P.A. 1980).

Claims 1-11, 15, and 19-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hacker et al. (US 2003/0186816 A1) in view Nabors et al. (US 2005/0233907 A1) .

Determination of the scope and the content of the prior art (MPEP 2141.01)

The teachings of Hacker et al. are incorporated herein by reference and are therefore applied in the instant rejection as discussed above.

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the invention of the instant application and that of Hacker et al. is that the instant invention requires an acetamide herbicide component, specifically mixtures of metalachlor (S) and (R) isomers. For this reason, the teaching of Nabors et al. is joined. Nabors et al. teach novel

synergistic compositions comprising acetamide herbicides such as mixtures of the (R) and (S) isomers of metolachlor wherein the ratio of (S)-2-chloro-N-(2-ethyl-6- -methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide to (R)-2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetam- ide is in the range of from 50-100% to 50-0%, preferably 70-100% to 30-0% and more preferably 80-100% to 20-0% for the selective control of weeds ([0010], claims 19-21 of instant application). Nabors et al. al teach the use of co-herbicides such as mesotrione, glyphosate, and glufosinate ([0020],claims 1,6,7,9,15,25,27,and 28 of instant application) and formulating the synergistic composition into a suspoemulsion ([0036],claims 15-29 of instant application).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the two cited references to arrive at a suspoemulsion pesticidal formulation that has an acetamide herbicide component. Both references teach the use of active compounds mesitrione, glyphosate, and glufosinate and the possibility of suspoemulsion formulations. One would have been motivated to make this combination in order to receive the expected benefit of having a pesticidal composition that is able to control the majority of weeds occurring in crops of cultivated plants due to the selectivity of acetamide herbicides. "It would be prima facie obvious to combine two methods

each of which is taught by the prior art to be useful for the same purpose in order to form a resultant method that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven, 205 USPQ 1069 (C.C.P.A. 1980).

Claims 1, 6-11, 15,17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hacker et al. (US 2003/0186816 A1) in view of Cornes (US 6,924,250).

Determination of the scope and the content of the prior art (MPEP 2141.01)

The teachings of Hacker et al. are incorporated herein by reference and are therefore applied in the instant rejection as discussed above.

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the invention of the instant application and that of Philipp et al. is that the instant invention requires that the mesitrione component is in the form of a metal chelate. For this reason, the teaching of Cornes is joined. Cornes teach synergistic herbicidal compositions comprising mesotrione and a second herbicide selected from triazines (abstract, claims 1,6, 7, and 15 of instant application). Cornes teach that the mesotrione component can be used in the form of a copper chelate (column 2, lnes12-16, claims 17 and 18 of instant application). Cornes also teach the use of an additional herbicide such as glyphosate (column 3, lines 60-65, claim 9 of instant application) and the use of emulsifying agents for the formulation of emulsifiable concentrates (column 4, lines 35-45, claim 15 of instant application).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the two cited references to arrive at a suspoemulsion pesticidal formulation that has a mesitrione component in the form of a metal chelate. Both references teach the use of mesitrione and glyphosate in a herbicidal composition. One would have been motivated to make this combination in order to receive the expected benefit of having metal

chelates of mesitrione which are chemically stable for long periods of time under normal as well as extreme temperature conditions (see abstract of US Patent 5,912,207). "It would be prima facie obvious to combine two methods each of which is taught by the prior art to be useful for the same purpose in order to form a resultant method that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven, 205 USPQ 1069 (C.C.P.A. 1980).

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Conclusion

None of the claims are allowed.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the ElectronElectronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown
Patent Examiner
Technology Center1600
Group Art Unit 1616

/Mina Haghighatian/
Primary Examiner
Art Unit 1616